

**Notice of Allowability**

Application No.

10/634,013

Examiner

Cindy D. Khuu

Applicant(s)

PURDY, MATTHEW A.

Art Unit

2863

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-32.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 9/1/05.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |                                                                                                                                        |                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                            | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date ____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>5/2/05</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                             | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|                                                                                                                                        | 9. <input type="checkbox"/> Other ____.                                               |

## **DETAILED ACTION**

### ***Examiner's Amendment***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

The abstract: Replace the abstract with - - The present invention is generally directed to various methods and systems for adaptive metrology sampling plans that may be employed to monitor various manufacturing processes. In one example, the method includes creating a plurality of metrology sampling rules, assigning each of the metrology sampling rules a sampling weight value, identifying at least one workpiece that satisfies at least one of the metrology sampling rules, assigning the sampling weight value for each of the satisfied metrology sampling rules with the identified workpieces that satisfy the rules, and indicating a metrology operation should be performed when a cumulative total of the sampling weight values is at least equal to a pre-established trigger value. - -

Figure 1: Replace "Sampling" (Reference 18) with - - Sampling - -. See attached proposed drawing.

### ***Pertinent Art Cited***

The following US Patent Application Publication reveals the current state of the art:

Chen et al. (6,477,432) teach a method, comprising: creating a plurality of metrology sampling rules (Column 5: Lines 30-50; inspection sampling rates and selective sampling lots are type of sampling rules); and assigning each of said plurality of metrology sampling rules a sampling weight value (Fig. 2; process stability levels).

However, Chen does not teach at least the method of indicating a metrology (defined as "the study of measurement") operation should be performed when a cumulative total of said sampling weight values (emphasis added) is at least equal to a pre-established trigger value.

Yanaru et al. (6,577,972) teach a method, comprising: creating a plurality of metrology sampling rules (Column 4: Lines 13; inspection steps are sampling rules); and assigning each of said plurality of metrology sampling rules a sampling weight value (Column 4: Lines 40-46).

However Yanaru does not teach at least the methods of identifying at least one workpiece that satisfies at least one of said plurality of metrology sampling rules; and associating said sampling weight value for each of said satisfied metrology sampling rules with said identified workpieces that satisfy said rules.

***Allowable Subject Matter***

Claims 1-32 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claim 1 is the inclusion of the limitation "the method of indicating a metrology (defined as "the study of measurement") operation should be performed when a cumulative total of said sampling weight values (emphasis added) is at least equal to a pre-established trigger value".

The primary reason for the allowance of claim 13 is the inclusion of the limitation " the method of indicating a metrology (defined as "the study of measurement") operation should be performed when a cumulative total of said sampling weight values (emphasis added) for one of said plurality of metrology sampling rules is at least equal to a pre-established trigger value.

Art Unit: 2863

The primary reason for the allowance of claim 23 is the inclusion of the limitation " the method of indicating a metrology (defined as "the study of measurement") operation should be performed when a cumulative total of said sampling weight values (emphasis added) for one of said workpieces is at least equal to a pre-established trigger value.

Claims 2-12, 14-22, and 24-32 are allowed due to their dependency on claims 1, 13, and 23.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### **Conclusion**


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy D. Khuu whose telephone number is (571) 272-8585. The examiner can normally be reached on M-F, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



9/2/05



John Barlow  
Supervisory Patent Examiner  
Technology Center 2800

Approved *alle* 9/1/05

5 / 5

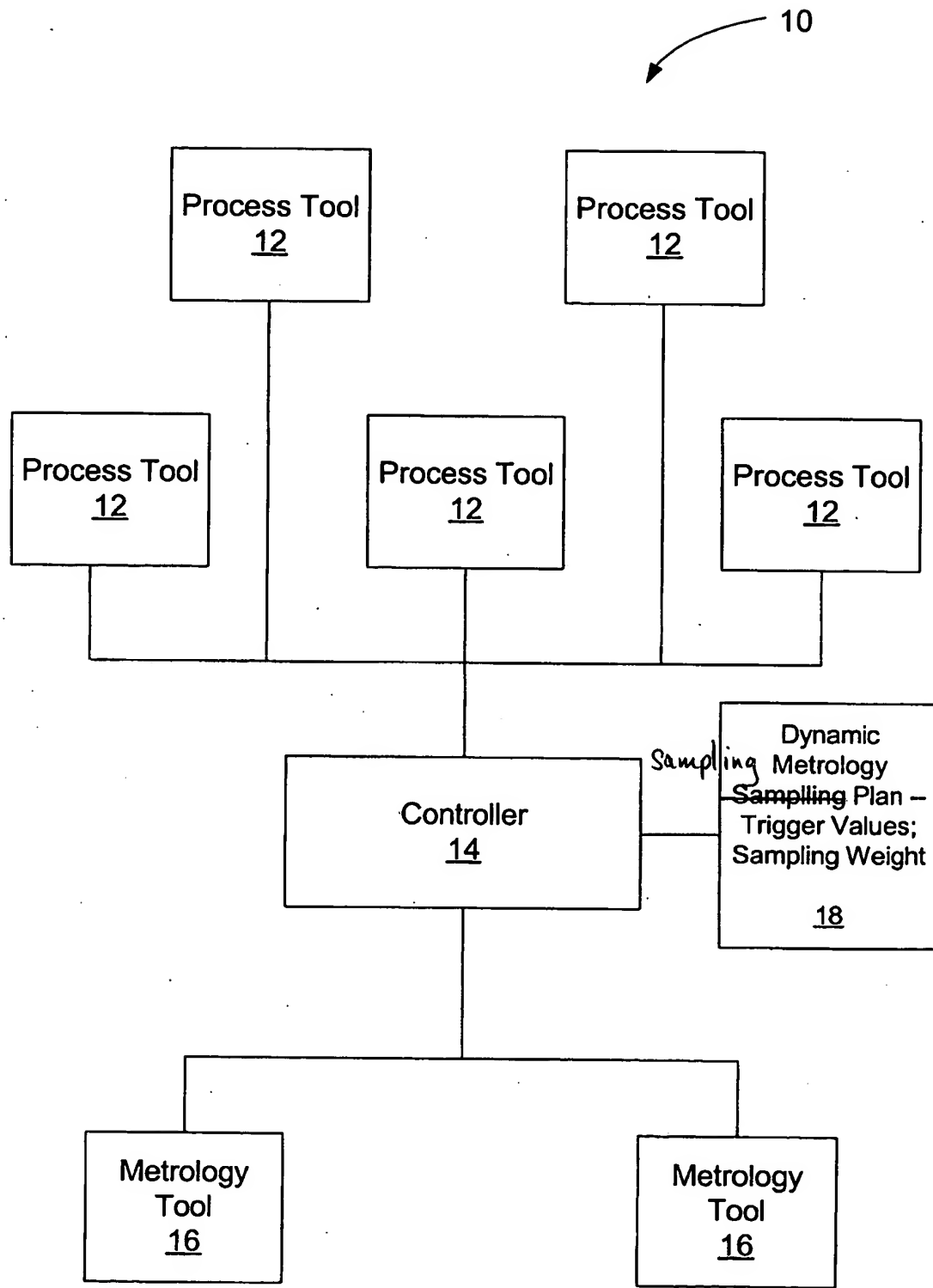


Figure 1